

CLAIMS

1. An insert terminal-containing case comprising:

a bottom wall, four side walls, and an opening at the upper portion,

wherein a terminal composed of a metal plate is vertically fixed to at least one side wall among the walls by insert molding,

a groove is vertically provided at the outer side surface of the side wall fixing the terminal, the groove extending downward,

the outer side surface of the terminal is partially exposed at the groove, and

the inner side surface opposite the outer side surface of the terminal exposed at the groove is partially exposed at the inner side surface of the side wall.

2. The insert terminal-containing case according to claim 1, further comprising a cutout for exposing the outer side surface of the terminal is provided in the vicinity of the bottom of the outer side surface of the side wall, the area of the terminal exposed at the cutout being greater than that of the terminal exposed at the groove,

wherein the lower end of the groove is run to the cutout.

3. The insert terminal-containing case according to claim 1 or 2, wherein the upper end of the groove is terminated at a position lower than the position of the upper end of the terminal.

4. A piezoelectric electroacoustic transducer comprising the case according to any one of claims 1 to 3, a piezoelectric diaphragm that vibrates in a flexural vibration mode by applying a non-DC signal between two electrodes, and a cover fixed to the opening at the upper portion of the case,

wherein two side walls opposite each other among the side walls of the case each include a terminal fixed by insert molding, and

the inner side surface of each terminal exposed at the inner side surface of the corresponding side wall is electrically connected to an electrode of the piezoelectric diaphragm with a conductive adhesive.

5. A process for producing an insert terminal-containing case, comprising the steps of:

preparing an upper die having a projection for forming the inner surface of a case and a lower die having a depression for forming the external surface of the case;

disposing the base plate portion of an L-shaped terminal on the bottom surface of the depression of the lower die, the terminal being composed of a metal plate, and then clamping the upper and lower dies in a manner such that the standing portion of the terminal is held between the outer side surface of the projection of the upper die and the inner side surface of the depression of the lower die;

injecting a resin into a cavity provided between the projection of the upper die and the depression of the lower die, and then curing the resin; and

separating the upper and lower dies after curing the resin to take the case out.

6. The process for producing the insert terminal-containing case according to claim 5, wherein a protruding stripe is provided on the inner side surface of the depression of the lower die, the upper end of the protruding stripe being disposed at a position lower than the position of the upper end of the standing portion of the terminal, and the lower end of the protruding stripe extending to the bottom surface of the depression, and

the standing portion of the terminal is held between the inner side surface of the protruding stripe and the outer side surface of the projection of the upper die.

7. The process for producing the insert terminal-containing case according to claim 5 or 6, wherein an arm portion is provided on the standing portion of the terminal, the arm portion extending to both sides, and

in the clamping step, both front and back surfaces of the arm portion are held between the outer side surface of the projection of the upper die and the inner side surface of the depression of the lower die.